F 457
.E2 L8

THE LIBRARY OF CONGRESS

171/539

LIBRARY
MAR
23
1885
DEPARTMENT OF STATE

THE

RESOURCES AND NEEDS

OF

EDMONSON COUNTY,

KENTUCKY.

BY

G. W. LONG.

1885.

THE BRADLEY & GILBERT COMPANY, PRINTERS.
LOUISVILLE, KY.

.E2L8

THE RESOURCES AND NEEDS

OF

EDMONSON COUNTY, KENTUCKY.

INTRODUCTORY.

It may be as well to state in the outset that the writer of this brief summary of the advantages and disadvantages of Edmonson County as a home and a place for the profitable investment of capital does not own an acre of the lands he attempts to describe. His only interest in the material advancement and the development of the resources of his native county is that common to all her sons—a desire to see his birth-place take its position by the side of those counties whose mineral resources have already been developed.

If we were seeking an influx of immigration, without regard to consequences, we might be induced to give only the bright side of the picture, and to deal mostly in glittering generalities; but while we invite the honest, energetic immigrant to come and make his home among us, this pamphlet will not only call the attention of capitalists and laborers to the many advantages which this county offers for paying investments and pleasant homes, but will also strive to point out the needs of our people in a concise manner.

It must be admitted that Kentucky has been left far behind her western sisters in point of immigration. This is not due to a lack of resources, nor to the rigor or intensity of her climate; few States are richer in mineral wealth, or in the value and extent of their forests than Kentucky, and while the people do not bask in "eternal sunshine," our climate is as nearly perfect as may be found elsewhere; and much milder than that of the great Northwest, which makes broad claims to climatic perfection. The cause is partly due to the bad impressions which the people of other States have of our citizens, (a subject that will be noticed further on), but more especially to a lack of information regarding our soil, climate, timber, mineral, and the true character of our society. Kentucky has no railroads or other great corporations owning large bodies of her land to advertise her

resources and invite, by cheap fares and otherwise, the home-seeker to take up his abode among us. The lands are divided in comparatively small parcels among the people, generally, and no individual owns enough to justify an extensive system of advertising. The State has taken but little interest in this important matter, and the outside world has been left in comparative ignorance of our resources and the character of our people. The Hon. John R. Proctor, Director of the Geological Survey of Kentucky, has given this question some attention, and his labors have been quite fruitful; and I am indebted to him for much information concerning the mineral resources of this county.

HISTORICAL STATEMENT.

Edmonson County was established in 1825, out of parts of Hart, Grayson, and Warren counties, and was named in honor of Capt. John Edmonson. It is bounded on the north by Grayson, east by Hart, south by Warren, and west by Warren and Butler counties. It is situated on either side of Green River, about one hundred miles from Louisville, and one hundred and thirty miles from Frankfort.

Being situated near the thirty-seventh parallel of North latitude, it is neither extremely cold nor excessively hot, but approaches very near the golden mean. The extremes are ten degrees below zero in winter, and ninety-five above in summer. The winters are, indeed, few that mark ten degrees below zero, and I doubt whether the thermometer for the past fifty years registered, on an average, a single day when the mercury stood below that point.

THE PEOPLE.

Unfortunately, Kentucky has inherited the harsh name of the "dark and bloody ground," and persons abroad have received, and still nourish, as sacred truth, very exaggerated ideas of the character, habits, and disposition of our people. The impression appears to have gone forth, that whoever enters upon Kentucky soil must do so against the point of a dirk or at the muzzle of a shot-gun; and many good people of other States, from erroneous ideas received through unreliable and inflammatory stories, really shudder at the thought of bringing their "little innocents" to live in such a country. Indeed, from stories I have read about Kentucky savagery, one would think that a Kentuckian abroad would create a greater sensation than forty Commanche "braves." How is it that two sentiments, so different in their nature, can live side by side? The one that Kentuckians raise their gory hands against any one who ventures upon Kentucky soil,

the other that *they* are the most hospitable people on the globe. All the newspaper comment about the great number of homicides in Kentucky is colored to order, and greatly exaggerates the truth. A man's life and property is as secure in Kentucky as elsewhere, and our laws are as well executed—the non-professional criticisms of our courts to the contrary notwithstanding.

The people of Edmonson County are as quiet, and as seldom violate the law as any people of whom I have any specific knowledge. They are generally poor, and many of them rather more indolent than accords with thrift and progress, but, as a rule, *they are honest.* There are certainly some who violate the commandment, "Thou shalt not steal," but I venture to say that no county in the State, nor, indeed, in any State, is freer from thievery than this. While prohibitory enactments of a minor nature are frequently violated, crimes, which are, *per se*, wrong, are rarely ever perpetrated.

The hospitality of Kentucky people is praised by every one who has shared their bounties, and no where does this virtue remain in its primeval simplicity more completely than among the generous inhabitants of Edmonson County. Go where you may, and you meet a kind reception; and, though a stranger, the poorest peasant will divide his scanty meal, and share his fireside with you.

Our people all labor; there are no "gentlemen" among us, except the inevitable "goods-box politician" and chronic "sponge."

It must be admitted that our people, like the laboring classes all over the world, are ignorant of the forms and ceremonies of polite society; that they are not versed in æsthetics or the social code, but for a whole-souled, hearty welcome to friends, and a kind word for strangers, and a helping hand for the needy, old Edmonson's sons and daughters are unsurpassed. Then, they have the fundamental qualities of true gentlemen and ladies—honesty and a just regard for the rights and feelings of others—and may soon learn the mere formal part of intercourse. Our society, from a moral standpoint, is good and wholesome, and no one need fear to raise his children in our midst. There are no saloons in the county.

TOWNS.

We are not blessed with towns of any considerable size, nor, indeed, of ordinary dimensions; and, hence, our local markets, which are always best for the producer, are not sufficient to stimulate that exertion so necessary to the financial prosperity of the county.

Brownsville, our county seat, is located on the south side of Green River, three miles below the mouth of Nolin River, and one hundred and thirty miles southeast from Frankfort. And, although it was established in 1828, has only about one hundred and twenty-five inhabitants. We have a good court-house, built in 1873, on which the county owes some $10,000 or $12,000—the only indebtedness of the county. On the east and the west sides of town, two hills rear their summits above the spire of the court-house, on whose tops the outcrops of iron ore give unmistakable evidence of the wealth that has slept beneath. We have three stores, three hotels, four practicing attorneys, one physician, and one carpenter. We have neither railroad connection nor river transportation, but of this we will speak more fully.

Rocky Hill Station is twelve miles southeast of Brownsville, on the Louisville & Nashville Railroad, and has a population of 120. It has two general stores, two drug stores, a hotel, blacksmith's shop, and is a live little town. It is the present shipping point for Brownsville.

Bee Spring, nine miles north of Brownsville, on the Brownsville and Leitchfield road, and near Nolin River, is a small village containing a post-office, two stores, and school-house. A Swedish colony is located here, and its founder, as well as other members, has made a very favorable report of the condition and prospects of the settlement. The village has a nice location, and as it is situated near the best iron and coal fields of the county, will ultimately be a thriving town.

Among other villages and post-offices of the county may be mentioned Stockholm, twelve miles northeast of Brownsville; Pig, seven miles southeast; and Huff, ten miles southwest. Of these, Stockholm, being situated within a short distance of outcrops of coal and iron ore, is the most important.

CAVERNS.

The world-famed Mammoth Cave, whose magnitude and wonders have attracted thousands of the most intelligent citizens of all countries, is only twelve miles from our county seat, on or very near Green River, and nine miles from the Louisville & Nashville Railroad, at Cave City, from which stages run to the cave. Besides this great wonder of the world, there are a great number of other caves whose attractions (save in size) are scarcely less than the mother of all caves.

Of these caves, Prof. Shaler, in his report of the Geological Survey of Kentucky, vol. 3, pp. 52 and 53, says:

"The caverns of Kentucky are among the most remarkable curiosities of this continent. They must always arouse the liveliest interest, and bring many tourists to the State. When they are explored and mapped, and their wonders well set forth, they will become a source of attraction to a much larger part of the world than has yet felt any interest in them. No other known region has a similarly extensive development of these caves. * * * * * It seems likely that these caverns have a very great value for the storage of fruit and other perishable material. * * * * * As the region where they occur is destined to be in close relations with many large cities, and is peculiarly suited to the growth of fruits and vegetables, there may be use for just these caverns.

"In Edmonson County there are probably not less than five hundred of these caverns, of considerable size, and a careful search might develop more."

RIVERS.

The most important streams traversing the county are Green and Nolin rivers, and Bear Creek.

Green River rises in Lincoln County, and flows southwest through Casey, Adair, Taylor, Green, Hart, and Edmonson counties, thence northwest through Butler, McLean, and Henderson, and forms a boundary line of Ohio, Muhlenburgh, Webster, and Daviess counties, and enters the Ohio River nine miles above Evansville, Indiana.

Nolin River heads in Hardin County, flows southwest, forming the boundary line between Grayson and Hart counties; thence south through Edmonson County, entering Green River three miles above Brownsville.

Bear Creek has its fountain head in Grayson County, flows southwest through the western part of Edmonson County, and enters Green River nine miles below Brownsville, at the beginning corner of the county.

It will be observed that both Nolin River and Bear Creek flow into Green River at right angles with it, and that they run through Edmonson County almost parallel with each other, leaving a space between them of about twelve miles at their mouths, which gradually becomes narrower as you go north. The space between Green and Nolin rivers is triangular in shape. These two sections form the great iron and coal fields in Edmonson County, and we shall frequently refer to them while speaking of these resources.

WATER POWER.

Edmonson County is probably not surpassed by any section in the United States in the extent and availability of her water courses as

motive powers. Green River, which flows from east to west through the middle of the county, affords sufficient water power within the limits of the county for half a hundred mills and factories. If the river should be improved by locks and dams, from each dam a mill or factory could be supplied with two hundred or three hundred horse power without injury to navigation; and the value of these powers would almost pay the expense of keeping up the locks and dams.

On this subject Prof. Shaler, at page 58, vol. 3, Kentucky Geological Report, says:

"Green River itself, draining, as it does, a large cavern area, is capable of making an admirable water power at almost any point above the slack water navigation; and below that point, wherever there are dams, there are waterfalls of great steadiness of volume, and of several hundred horse power, at the lowest water, going to waste."

Nolin River, than which (Green River, which gives an outlet excepted) there is no more important stream in Southwestern Kentucky, has an abundance of water power scarcely inferior to Green River. Of this river Prof. Shaler says:

"Nolin River will furnish a water power comparable to many of the most important of the New England rivers. The report of Mr. Page will show that, in the extraordinary dry season of 1874, it, at the lowest stage, ran so as to be equal to twenty horse power for each foot of fall, a quantity which probably much excelled the discharge of the Licking River at the same time, though that river drains a district having an equal rainfall and some ten times the area of surface."

Bear Creek, though smaller than Nolin, furnishes numerous good sites for mills.

Besides these there are quite a number of smaller streams of greater or less importance to the communities in which they are located, but not of sufficient consequence for special mention here.

SPRINGS.

One of the very best features of the county is its numerous springs of pure and never-failing water. Scarcely a farm in the county but is supplied with one or more of these refreshing fountains. Indeed, these crystal streams, as they burst from the mountain's side, laughing for joy and sparkling with purity, and glide away down the hills with their silver waves rippling over their white pebbled bottoms, are luxuries of which the gods might be proud to partake.

SCENERY.

Edmonson County can boast some of the finest scenery in the State. The grandeur and wild picturesqueness of her hills are hardly surpassed by those immortalized by Irving. Riding on horseback along one of the gravelly ridges found in the county, I came full upon one of the grandest scenes mortal eyes ever beheld. Just before me lay a valley, on either side of which magnificent hills reared their summits toward the heavens, ending at the valley with precipitous bluffs almost two hundred feet high. A pearly stream meandered through the center of the valley; the edges of the bluffs were fringed with pine and holly; and their tops were capped with the great oaks of the forest.

Mr. P. N. Moore, in his report on the "Geology of the Nolin District," has this to say of the scenery of this county:

"Some of the most romantic and beautiful scenery of the State is to be seen on the streams of this region. The well-known Dismal Rock on Nolin River, at the mouth of Dismal Creek, is but one instance among many. Piney, Pigeon, Bylew, and the other creeks in the heavy conglomerate, present a series of wild and picturesque cliffs which have been rarely seen by appreciative eyes, but are well worthy the attention of the tourist. Were they more accessible, the region would doubtless become a well-known and attractive resort."

TIMBER.

No county has been better clothed with valuable timber than Edmonson. Her hills and valleys are studded with poplar, ash, oaks of various kinds, hickories, gums, beeches, hard and soft maple, and many other kinds. But the agencies that have destroyed the timber in other parts of the States have not been idle here, and vast forests have fallen before the axe of the agriculturist to make room for fields of corn, wheat, and tobacco. Besides, the poplar and walnut timber growing near our principal streams has been floated down them to market. Still we have thousands of acres of valuable timber, which, in the development of the various resources of the county, will find a ready market at remunerative prices. The greater part of this timber is, fortunately, situated in the immediate vicinity of the iron and coal deposits of the county, and when these sources of wealth are developed, as they will certainly be in a few years at most, the timber will be at hand for building and other purposes.

In his report on the Botany of Barren and Edmonson counties, Mr. John Hussey, among many other valuable things, says:

"Turning to the more practical side of my work, I can say that the quantity of valuable timber-trees [in Barren and Edmonson] seems practically inexhaustible."

Further on:

"From the extreme east to the west of this great State, every part is clothed with the most valuable kinds of wood, from the bold cypress of the extreme southwest to the white pine in the Cumberland table-land, and the *inexhaustible oak forests of the Green River counties*, and those of the eastern and southeastern part of the State."

Prof. Shaler, in his introduction to the above report, says:

"All along the tributaries of Green River we have admirable trees for such industries [making hubs, felloes, etc.]; places where water power can be utilized at actual contact with permanent navigation for steamers directly connecting New Orleans by the cheapest possible carriage.

"The ample stores of oak and other ship timbers along this stream, Green River, suggest the possibility of developing another industry here. Good ship timber can be had in this district at one-third the lowest price ruling on the Atlantic seaboard."

AGRICULTURE.

There are a great many counties in the State better adapted to farming than this, if we limit that industry to the cereals. Notwithstanding this, however, our people are engaged almost exclusively in farming, but with the full limitation, as to crops, given above. *Corn* is a constituent element in the make up of every Kentuckian; and the proverbial excellence of Kentucky corn-bread is no where better preserved than here.

The farmers of this county have much to learn before they reap adequate rewards for the labor they bestow. The system of farming practiced here is probably the worst that ever rewarded those engaged in the occupation with a living, and is such as to show the county in the very poorest possible light to those who are seeking homes in an agricultural district. Fields are "cleared," and year after year planted in corn until they will no longer produce that cereal; they are hen sowed in wheat, which produces no more than was sowed, and the impression prevails that wheat does not pay here.

Too many of our farmers (?) have no higher ambition than to raise just enough corn to last them through the year; and when it is "laid by," spend the remainder of their time discussing politics on goods boxes or some other equally useless employment.

What we need is *energy* and a greater variety of products. Along our streams we have lands that will bear a great many successive crops of the same kind without impoverishing the soil which is fed each year by overflows, but uplands need greater care and more diversity of crops.

Grasses grow well when given a fair opportunity, but, like wheat, are usually expected to grow on lands that will not produce anything else. Peaches and apples do well when properly cared for; and I am satisfied grapes may be profitably grown on lands not suited to other products.

COAL.

The western coal field of Kentucky (Edmonson County being one of the richest localities) is practically inexhaustible, and furnishes a high grade of coal and very superior coke. The region on the south side of Green River, in Edmonson County, has not been surveyed, and no very positive information of this section can be given, but some outcrops examined by the writer, and a study of the formation in which they are found, indicate mines of considerable economic value, if the quality (it has not been analyzed) proves as good as the quantity appears to be extensive.

The principal work in this county by the Geological Survey has been done on the north side of Green River, between Bear Creek and Nolin River, and between Green and Nolin rivers. In these two sections there is enough coal of good quality to run a thousand furnaces for one hundred years. Nearly all this coal can be mined by drifting, which, when the mines are opened, can be done at a cost of about seventy-five cents per ton, and as these beds of coal are situated very near Bear Creek, and Nolin and Green rivers, if these streams should be improved, as they certainly soon will be, the coal could be marketed at small cost.

Mr. Wm. B. Caldwell, in his "Notes on the Coal and Iron Ores of Western Kentucky," after giving an analysis of the Edmonson County coals, says:

> "With an unlimited supply of coal of excellent quality for iron making, and as cheaply mined and handled as this may be * * * * * it only requires to prove the existence of abundant supplies of iron ore of sufficient richness and purity to show that this must inevitably be a great iron producing region in the future."

Mr. P. N. Moore, in his report on the Geology of the Nolin River District, speaking of the quality of our coal, says:

"Of the Main Nolin Coal a number of analyses have been made, both from single specimens and carefully averaged samples.

"The following analyses of this coal, by Dr. Peter and Mr. Talbutt, will serve to show its quality:

	1	2	3	4	5	6	7	8	9	10	11
Specific gravity . . .	. . .	1.303	1.335	1.282	1.345	1.437	1 350	1.367	1.336	1.395	1.346
Moisture	3.40	4.70	4.06	2.03	2.60	4.06	3.60	3.20	3.66	4.14	6.26
Volatile combustible matter	30.66	31.40	33.24	32.10	33.80	32.00	33.00	33.80	35.14	31.52	32.44
Fixed carbon	54.94	52.20	51.70	56.30	53.14	50.84	54.40	52.60	54.26	56.08	53.80
Ash	11.10	11.70	11.06	9.30	10.46	13.10	9.00	10.40	6.94	15.26	7.50
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Coke	65.94	63.90	62.70	65.60	63.60	63.94	63.40	63.00	61.20	65.34	61.30
Sulphur	2.544	1.945	1.67	1.059	2.425	4.938	2.101	2.923	2.706	3.565	1.476

"No. 1 is an average sample, taken by myself, of the coal from the Steven's bank, Butler County.

"No. 2 is an average sample, taken by myself, of coal from *Tar Lick, near Dismal Creek, Edmonson County.*

"No. 3 is an average sample, by Mr. J. R. Proctor, of coal from *same locality.*

"No. 4 is a single specimen from *same locality.*

"No. 5 is an analysis of a single specimen from Knob Lick, Dismal Creek, Edmonson County.

"No. 6 is an average sample, by myself, from a small outcrop of coal on Mill Branch of Bear Creek. The outcrop from which the sample was taken was so small that it can not be safely considered as a representative sample.

"Nos. 7 and 8 are analyses of single specimens from the same locality.

"No. 9 is an analysis of a single specimen from Shoal Branch of Bear Creek.

"No. 10 is an analysis of coal from Gravelly Lick, Miller's Fork of Bear Creek. The sample was taken by myself from a very small outcrop, and can not be considered as an average of the whole bed.

"No. 11, coal from Brushy Branch of Canoloway Creek, average sample, by myself.

"These analyses, with the exception of Nos. 6 and 10, show a coal of quality which entitles it to rank among the best of Western Kentucky."

IRON ORES.

We come now to the chief source of natural wealth in the county. The iron ores of Western Kentucky are nowhere richer or more abundant than in the northern part of Edmonson County. Indeed, few counties in the United States are better supplied with iron ore and

coal than this county, and I doubt if any have better facilities for making cheap iron. For fifteen miles north from Green River, in Edmonson County, there is scarcely an acre of land that does not cover a workable vein of high grade iron ore. These beds of ore lie between Nolin and Green rivers, and between Bear Creek and Nolin River. This probably covers the full area of workable iron ore in the county.

Other parts of the county have not been surveyed, and no accurate information of them can be given. The writer has examined a few places south of Green River, where the ores would most probably be found, but the only indications were on high hills where the covering is gone, and the main beds appear to have wasted away. If there is any ore here, save that capping the hills, it is located (like that near Bear Creek), under the conglomerate.

But whether there are workable beds south of Green River may be determined hereafter; for, on the north side of the river, we know, from repeated examinations and tests, that there is sufficient ore to last any probable number of furnaces for a hundred years.

From Prof. D. D. Owen's report of the Geological Survey of Kentucky, vol. 2, page 159, I extract the following:

"No. 414—Limonite. Labeled Iron Ore from the Nolin Ore Bank, Edmonson County, Ky. Composition, dried at 212° F—

Oxide of iron	60.90=42.64 per cent. of iron.
Alumina	.65
Brown oxide of manganese	.75
Lime, a trace	..
Magnesia	1.15
Phosphoric acid	.57
Potash	.36
Soda	.32
Silica and insoluble silicates	23.68
Combined water	11.15
Loss	.47
	100.00

Another analysis of ore from the same locality, but occupying a different position in the formation, gave 52.31 per cent. of iron, an increase of nearly ten per centum.

No. 416—*carbonate of iron*—gave 37.04 per cent. of iron.

No. 419, from W. B. Morris' farm, between Nolin and Green rivers, gave 43.50 per cent. of iron.

From the report of Mr. P. N. Moore on the Geology of the Nolin River District, I select, from fifty-two pages of a like tenor, the following:

"The iron ores of this region are abundant and valuable. It is one of the most richly-endowed, undeveloped localities in the State.

"On Caney Branch of Gulf Creek, one of the lowest branches of Bear Creek, on the farm of Jacob Souders, there is found an ore of excellent quality, a limonite, so far as seen, of remarkable purity."

After explaining the peculiar location of this ore as compared with the position iron ores usually occupy, the writer says:

"In quality this ore is among the best of this region, and if it can be found to extend over any great area, it will prove one of the most valuable. It has been found outcropping in considerable quantities on the farm of M. Honaker, on Green River, above the mouth of Bear Creek. Enough is here seen to indicate with considerable certainty that this is the same ore, and that it is present in considerable quantities."

This ore is independent of the main vein of ore elsewhere spoken of.

"There are two banks near the Brownsville and Leitchfield road, about two miles apart. At the most southerly of these, the ore is reported to be six feet thick, and it was seen between three and four feet in thickness, of which the upper portion was ore of very good quality; the lower was sandy and ochreous.

"South of Bee Spring, on the heads of Sycamore and Beaver Dam creeks, an ore is found sixty feet above the heavy conglomerate, and from fifteen to twenty feet above a sandstone which seems to be the thin edge of the Bee Spring sandstone. This ore is somewhat different in character from that last described, but it is not unlikely the same ore. It has only been seen as a limonite, which is oolitic and rather coarse-grained, appearing more silicious than it really proves to be on analysis. * * * * * It is between three and four feet thick where seen, but in the opinion of the writer will probably average near the lower figure."

Prof. Shaler, in a note to the latter part of the above statement, says:

"This ore has been distinctly seen in but two places, and in these it exceeds four feet in thickness by my measurements."

The analysis of this ore taken from an exposure at the head of one of the branches of Beaver Dam Creek, near where the Little Mountain Road leaves the Leitchfield and Brownsville Road, Edmonson County, gives 37.048 per cent. of metallic iron.

Mr. Wm. B. Caldwell, in his "Notes on the Coal and Iron Ores of Western Kentucky," says:

"In Edmonson, between the Nolin River and Bear Creek, a ridge about fifteen miles long and five miles wide, carries several beds of good ore, altered carbonates probably, which appear as limonites on the outcrop, but may run into carbonates when sufficiently under cover." [The analysis of samples from two of these give 40 and 46 per cent. respectively of metallic iron.]

"Another locality which promises most favorably is the district between Nolin River and Bear Creek. Here is every advantage for iron making, except railroad transportation, and in these times of narrow-gauge roads it would not be impossible to run a road through the region, say from Grayson Springs to some point on Green River, or extend the projected road from the Louisville & Nashville to Mammoth Cave, six or seven miles further, to these ores and coals. Leaving the railroads out of the question, however, very little expense on the water courses—one lock and dam—would give good water transportation, and pig-iron could be taken to Rockport, Bowling Green, or Evansville, on the Ohio River, at a very low figure. Slack-water navigation can be reached (with the dam spoken of) by a tram-way of a few miles in length from the center of this region.

"Some of the most prominent ores of this locality have already been mentioned. They can be mined for less than one dollar, and by locating a furnace conveniently for both ore and coal, which could easily be done, iron could be made at a very low figure.

"The coal, being unusually firm and hard, could be used raw to the extent of at least one-third, and as the vein—Main Nolin coal or L—is 3½ feet thick at the least, mining could be done for 75 cents, as it would be on the drift."

Owing to causes largely out of his control, Mr. J. R. Proctor, present State Geologist, has not extended the survey in this county, nor in any part of the Western fields, but knowing this region as he does he has not failed to lend his testimony to the resources that lie undeveloped beneath our soil. Here is an extract from his pen about this region:

"In the Western coal-field are twelve beds of coal of workable thickness of good quality. Associated with the lower coals are several beds of limonite and cabonate iron ores, all above drainage, and situated favorably for cheap mining. One ore of good quality has an extensive area, and is from three to five feet in thickness."

CONCLUDING REMARKS.

The iron industry is rather dull at present, and capitalists are not as ready to invest in this business as formerly, but the present depression is not likely to continue *ad infinitum*, and the period for the development of the Western coal and iron fields of Kentucky is rap-

idly approaching. The coal, iron, and timber resources of this section are sure to attract capitalists, and their development will make this one of the leading sections of the State.

As in the professions the best is always in demand at fair prices, so the best grades of iron will always command good prices, although the market is overstocked with the lower grades. We have a good quality of ore and plenty of the very best woods for charcoal, and there is no reason why a very superior grade of cold blast charcoal iron may not be made here.

The lack of transportation facilities is the only great obstacle to the speedy devevelopment of the whole Green River country. This river and its tributaries, Bear Creek and Nolin River, drain a section, the development of whose timber and mineral resources would furnish employment to thousands of hands, and food and clothing to large numbers of women and children whose husbands and fathers are now in enforced idleness. It is idle to say these laborers are unemployed because of over-production. The cost of making iron is too great when the coal and ore must be shipped an average of four hundred miles to meet each other, and furnaces and foundries thus inconveniently situated can not pay full wages and compete with those more favorably located. Let both your furnaces and rolling mills be located where coal and iron ore abound, and where you have water transportation to the trade centres of the world, and there will be less complaint of a dull iron trade. Such a place is found in the Green River country, and that stream is just such a natural outlet as is required to carry heavy freight to market. Why, then, is the resources of this region not developed? The answer is that the Kentucky Legislature ill advisedly leased the improvements on lower Green River to a corporation for a term of thirty years. This corporation by high tolls excludes all competition in the carrying trade, and the country is in a worse condition than if these improvements were not in existence. Commerce is as completely locked by this corporation as the river is by its gates, and the corporation and the Legislature that granted the franchise are as thoroughly damned by the people as the river is by the improvements.

If the General Government would buy the interest of the Green and Barren River Navigation Company, and improve the river still further by locks and dams, and open these streams to free navigation, it would immediately furnish employment to thousands of hands in the construction of these improvements and in the development of the country which would directly follow.

Of the number of additional dams necessary to fully develop the country drained by the Green River and its tributaries, I can not speak with certainty, but there should be a sufficient number to give slack water navigation at least to Munfordsville, in Hart County, and connect with the Louisville & Nashville Railroad at that point. I should say, however, that the better plan would be to extend slack water so as to connect with the railroad running from Lebanon by Greensburg, in Green County, thus giving the Green River country both a Louisville and Cincinnati connection from the North. This would give competing lines of transportation to the Ohio River, and open this country to the Northern as well as the Southern trade.

One of these dams should be placed just below the mouth of Bear Creek, thus giving several miles of slack water up that stream, and another could be placed below the mouth of Nolin River, which would also open slack water navigation for a number of miles up this important stream, and give an outlet to much of the coal and iron along its shores.

Another matter may be here mentioned which is of importance to railroads. By a short line of railroad running from somewhere near the Grayson Springs, on the E. & P. Road, through this iron and coal region, by Brownsville to Bowling Green, and across from there to a point on the road being built from Lebanon, by Greensburg and Scottsville, to Nashville, south of Scottsville, we would have railroad connection with Louisville, Cincinnati, and Nashville; and Bowling Green and other points would have competing lines to those cities. The railroad would get a good carrying trade, especially North, as there is no direct water connection with Louisville and Cincinnati.

A water-way of so much importance to the country ought to be under the control of the General Government, and made a free highway for commercial intercourse. The people of Kentucky are anxious for such a consummation of the condition the Legislature unwittingly got them into, and those living along the river and its tributaries are daily groaning under the burdens which the present system entails upon them, and are praying earnestly for freedom from their semi bondage.

Until this matter is settled, and competing lines of common carriers are established, this county must lie undeveloped. Nay, worse; the valuable forests along our streams must be destroyed by the farmer's axe; and the stately oaks, whose trunks would make magnificent merchant-men, must furnish food for the worm and a home for the

woodpecker. Our hills will be stripped of their foliage; the plowshare will ultimately crash into the beds of ore beneath, and the torrents rush them into the streams below, to be carried away by the tide, and lost to commerce forever.

In these times of labor troubles, when men, women, and children are starving because of enforced idleness, it would be wise for the Government to free its groaning vaults of their surplus millions by a judicious system of internal improvements; and there can be no place where a few thousands of dollars could be more profitably expended than on the waters of Green River in Kentucky.

C 168 82

JUN 82
N. MANCHESTER,
INDIANA 46962

LIBRARY OF CONGRESS
0 014 613 578 A